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PatentREMARKS AND ARGUMENTS

Claims 1, 3-8, 10-15, 17-21, and 23-24 remain in this case.

REJECTION UNDER 35 U.S.C. §102(e)

Claims 1, 3-6, 8, 10-13, 15, 17-19, 21, and 23 have been rejected under 35 U.S.C. §102(e), the examiner alleging that they are fully met by Tomlinson, Jr., et al. (USP 6,298,229). This rejection is respectfully traversed.

All of the independent claims 1, 8, 15, 21, and 24 recite that a time difference is transmitted between the code phases of the received GPS signals. This is neither shown nor suggested in the Tomlinson, Jr., et al. reference.

The portion of Tomlinson, Jr., et al. reference relied upon by the examiner is found at Col. 4, lines 20-27 (OA 1/29/04, p. 2), which states as follows:

“One problem with computing location from pseudo-range or time-difference data is location ambiguity that occurs when time differences are taken from code phase measurements. Since the GPS receiver is capturing data only for a short period of time (<0.1 sec), location can be determined only by assuming that the GPS receiver lies within a region defined by the maximum time difference between GPS signals.” (Emphasis added.)

This is totally inapposite to applicant's claimed invention. The next sentence in Tomlinson, Jr., et al. states “Since the general location of a cellular telephone, for example, can be determined by locating the cell in which the telephone is broadcasting, the central since can use this information to resolve the location ambiguity in the time-difference measurement.” Thus, the time difference in Tomlinson, Jr., et al. is the pseudorange. (Col 4, lines 20-21), not the time differences between code phases, as claimed by applicant. The time difference referred to in Col. 4, line 26 represents a geographic region for location ambiguity resolution. It appears to be used in a different context than the “time difference” of lines 20-21, to mean a time difference between the maximum and minimum pseudoranges. Neither time difference recited in Tomlinson, Jr., et al. is a code phase time difference.

In contrast, applicant's claim 1 recites:

“determining a code phase of each among a plurality of received signals, wherein said received signals are GPS signals; and

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transmitting a time difference between the code phases of at least one pair among the plurality of received signals". (Emphasis Added.) This is not shown or suggested in Tomlinson, Jr., et al.

The remaining independent claims contain analogous language making clear that the time difference is "between code phases."

Moreover, nothing in the quoted language indicates that the time difference (i.e., pseudorange difference) is transmitted from the receiver to the central site in Tomlinson, Jr., et al. With the pseudoranges themselves being transmitted, the central site would be capable of determining the time difference between the maximum and minimum time difference to resolve the ambiguity in combination of the a priori knowledge of the location of the central site.

For at least these reasons the rejection should be withdrawn.

REJECTION UNDER 35 U.S.C. §103(a)

The examiner had rejected claims 1, 3-8, 10-15, 17-21, and 23-24 under 35 U.S.C. §103(e), alleging that they are obvious from Camp, Jr., et al., (USP 6,070,078) in view of Tomlinson, Jr., et al.. This rejection is respectfully traversed.

All of the independent claims 1, 8, 15, 21, and 24 recite that a time difference is transmitted between the code phases of the received GPS signals. This is neither shown nor suggested in the Camp, Jr., et al. reference.

As discussed above, Tomlinson, Jr., et al. does not show "transmitting a time difference between the code phases of at least one pair among the plurality of received signals", as claimed by applicant.

Therefore, the combination of Camp, Jr., et al. and Tomlinson, Jr., et al. would not result in the applicant's claimed methods, apparatus, and system. For at least this reason, therefore, the rejection of claims 1, 3-8, 10-15, 17-21, and 23-24 under §103 should be withdrawn.

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In light of the above, therefore, applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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